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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SHINICHI TANAKA and MASAHARU SAKAI

Appeal 2016-004248
Application 13/347,980[1]
Technology Center 2100

Before JEAN R. HOMERE, HUNG H. BUI, and MICHAEL M. BARRY, *Administrative Patent Judges*.

BUI, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants seek our review under 35 U.S.C. § 134(a) of the Examiner's Final Office Action rejecting claims 1–4 and 6, which are all of the claims pending on appeal. Claims App'x. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.[2]

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[1] According to Appellants, the real party in interest is Sony Computer Entertainment Inc. App. Br. 2.

[2] Our Decision refers to Appellants' Appeal Brief filed July 24, 2015 ("App. Br."); Reply Brief filed Mar. 4, 2016 ("Reply Br."); Examiner's Answer mailed Jan. 12, 2016 ("Ans."); Final Office Action mailed Mar. 5, 2015 ("Final Act."); and original Specification filed Jan. 11, 2012 ("Spec.").

STATEMENT OF THE CASE

Appellants' invention relates to a technology for efficiently executing file access. Spec. ¶ 7. Claims 1 and 4 are independent.

Claim 1 is illustrative of Appellants' invention and is reproduced below:

> 1. An information processing apparatus comprising:
>
> a storage unit configured to store a patch file and an application file in a directory structure, the application file being identified by a title ID, and including an application program, a boot file used to start the application program, and a predetermined mount point, and the patch file including one or more files for augmenting the application file and the predetermined mount point;
>
> a file management unit configured to manage the files in the storage unit in the directory structure, where: (i) the application file is stored at one or more locations within a sub-directory of the directory structure identified by a path that includes the title ID; and (ii) the patch file is stored at one or more locations within another sub-directory identified by another path that includes the title ID;
>
> a booting unit configured to execute the boot file upon receipt of a boot instruction, and to assign a process ID to an application process when the boot file is executed; and
>
> a processor configured to execute the application program after the boot file is executed,
>
> wherein the file management unit includes:
>
> a mount unit configured to maintain a correspondence table, including at least a first entry for the application process associating at least the process ID, the Title ID, the path for the application file, and the mount point, and including at least a second entry for the application process associating at least the process ID, the Title ID, the path for the patch file, and the mount point;
>
> a path acquisition unit configured to receive the predetermined mount point and the process ID, and in response, to acquire the path to the application file and the

> path to the patch file when the booting unit executes the boot file by accessing the correspondence table; and
>
> a path switching unit configured to switch the path to the application file with the path to the patch file.

App. Br. 12 (Claims App.).

Examiner's Rejection and References

Claims 1–4 and 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka et al. (US 2008/0141018 A1; published June 12, 2008; "Tanaka") and Hamilton, II et al. (US 6,496,977 B1; issued Dec. 17, 2002; "Hamilton"). Final Act. 5–11; Ans. 2–9.

ISSUES

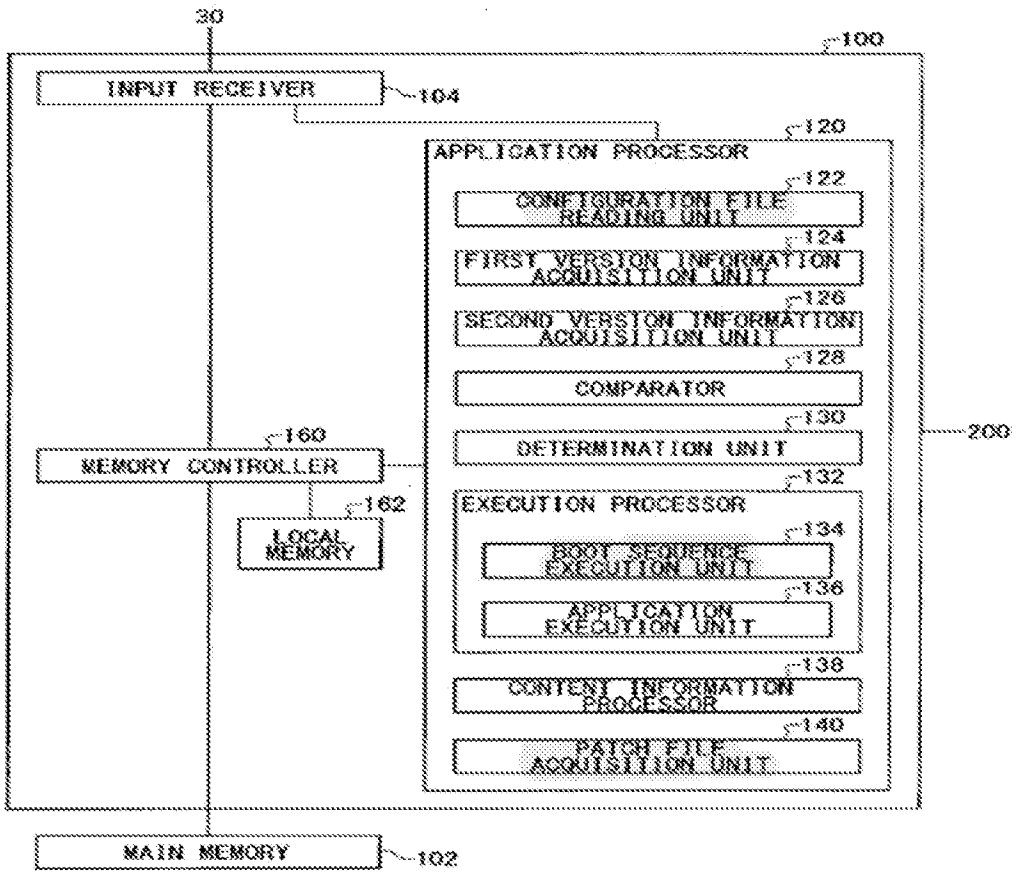
Based on Appellants' arguments, the dispositive issues presented on appeal are: (1) whether the combination of Tanaka and Hamilton teaches or suggests several limitations of Appellants' claimed invention; and (2) whether the Examiner has articulated reasoning with some rational underpinning to support the combination of Tanaka and Hamilton. App. Br. 5–11; Reply Br. 2–6.

ANALYSIS

With respect to independent claims 1 and 4, the Examiner finds Tanaka teaches an information processing apparatus, shown in Figures 3 and 4, including (1) "a storage unit configured to store a patch file and an application file in a directory structure" in the form of media drive 32 and disk drive 34, shown in Figure 3, (2) "a file management unit configured to manage the files in the storage unit" in the form of application processor

120, shown in Figure 4, (3) "a booting unit configured to execute the boot file" in the form of boot sequence execution unit 134, shown in Figure 4, (4) "a path acquisition unit . . . to acquire the path to the application file and the path to the patch file" in the form of patch file acquisition unit 140, shown in Figures 4 and 7A, and (5) "a patch switching unit configured to switch the path to the application file with the path to the patch file" as described in paragraphs 1–12, 22–75, Figures 1, 3, 8 of Tanaka. Final Act. 5–6 (citing Tanaka ¶¶ 1–12, 22–75, Figs. 1, 3, 4, 7A, 8).

Tanaka's Figure 4 is reproduced below with additional markings for illustration:



Tanaka's Figure 4 shows application processor 120 including configuration file reading unit 122, determination unit 130, boot sequence execution unit 134, and patch file acquisition unit 140.

As shown in Tanaka's Figure 4, patch file acquisition unit 140 may acquire a patch file for game data from a memory medium, extract title ID included in the configuration file of the patch file, and create a directory for storing the patch file for each piece of game data, shown, for example, in Figure 7A. Tanaka ¶¶ 41–42, 52. According to Tanaka, each path file includes (1) a configuration file, (2) a boot file, and (3) a differential file of the main program. Tanaka ¶ 71. The configuration file may retain "path identifying information" and "directory identifying information" used to identify the path and the directory respectively. Tanaka ¶ 54.

To support the conclusion of obviousness, the Examiner relies on Hamilton for teaching the use of

> a mount unit configured to maintain a correspondence table, including at least a first entry for the application process associating at least the process ID, the Title ID, the path for the application file, and the mount point, and including at least a second entry for the application process associating at least the process ID, the Title ID, the path for the patch file, and the mount point.

Final Act. 7 (citing Hamilton 3:5–67, 4:1–25).

Appellants dispute the Examiner's factual findings regarding Tanaka and Hamilton. For example, Appellants contend neither Tanaka nor Hamilton teaches or suggests the "predetermined mount point" as recited in claims 1 and 4. App. Br. 7–8; Reply Br. 2–3. According to Appellants, Hamilton's Figures 8A–8C make reference to "Perform NFS Mount from Server to Client" but that reference does not support the Examiner's finding that Hamilton teaches the "predetermined mount point." App. Br. 7. Appellants further acknowledge Hamilton teaches a directory structure of

files, but argues that no part of Hamilton's directory structure can serve as Appellants' claimed "predetermined mount point." Reply Br. 2–3.

Appellants also contend neither Tanaka nor Hamilton teaches or suggests: (1) the "process ID" assigned "to an application process when the boot file is executed," (2) the "title ID" and "paths," and (3) the "correspondence table" as recited in claims 1 and 4. App. Br. 8–11; Reply Br. 3–6. In particular, Appellants argue Hamilton's "i-node is not assigned to an application program when a boot file for the application program is executed" but is rather "a name for the file (readable by the kernel of the UNIX operating system)—irrespective of whether the file is being executed or not" and, as such, cannot be considered as Appellants' claimed "process ID." App. Br. 8 (citing Hamilton 1–6). Appellants acknowledge Tanaka teaches a "title ID" but argue neither Tanaka nor Hamilton teaches a "title ID" having what Appellants characterize as "the following attributes: (i) it identifies the application file (containing the application program), (ii) it is included in the path to the application file; and (iii) it is included in the path to the patch file." App. Br. 9 (citing Tanaka Fig. 7A, Hamilton 1–6). Appellants further acknowledge Hamilton teaches a UNIX directory of files, but argue Hamilton's directory of files does not include any "correspondence table" having specific entries for "the process ID, the title ID, the path for the application file, the path for the patch file, and the predetermined mount point." App. Br. 10 (citing Hamilton 3:44–67).

Lastly, Appellants contend the Examiner has not articulated "reasoning with some rational underpinning" to support the combination of Tanaka and Hamilton. App. Br. 11; Reply Br. 6. According to Appellants, the Examiner's stated reason (i.e., both references are directed at file

management) for combining Tanaka and Hamilton is merely conclusory. App. Br. 11.

We do not find Appellants' arguments persuasive. Instead, we find the Examiner has provided a comprehensive response to Appellants' arguments, supported by a preponderance of evidence. Ans. 9–16. Therefore, we adopt the Examiner's findings and explanations provided therein. *Id.* At the outset, we note claim terms, during prosecution before the PTO, are to be given their broadest reasonable interpretation consistent with the specification. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Under the broadest reasonable interpretation, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

As recognized by the Examiner, the term "predetermined mount point" is not explicitly defined by Appellants' Specification. However, that term is described in the context of identifying a path of an application file in a file system. For example, Appellants' Specification describes:

> a file system associates the path of an application file with a virtual predetermined mount point (e.g., "GAME0"). The application file contains beforehand the information with which this mount point "GAME0" is identified, and the application file accesses the file by specifying this mount point. The correspondence between the mount point and the path of the application file is managed by the file system, so that the application does not need to specify the actual path of the file and the application can access a desired file by simply specifying "GAME0."

Spec. ¶ 30 (emphasis added). In other words, the term "predetermined mount point" refers to a specific point in a directory of files. Ans. 9–10.

Based on Appellants' Specification, the Examiner has interpreted the term "predetermined mount point" as encompassing Hamilton's "files that have pre-written directories and paths within the files which carry out the operations presented in Hamilton, [as shown, for example, in Figure 8C] the mount points disclosed in Hamilton are deemed to be 'pre-determined.'" Ans. 10 (citing Hamilton's Fig. 8C); *see also* Fig. 5, step 522 where Hamilton describes collecting "file system size information, logical volume names, and mount points." We find the Examiner's interpretation reasonable and consistent with Appellants' Specification. "Absent an express definition in their specification, the fact that [Appellants] can point to definitions or usages that conform to their interpretation does not make the PTO's definition unreasonable when the PTO can point to other sources that support its interpretation." *In re Morris*, 127 F.3d 1048, 1056 (Fed. Cir. 1997).

Similarly, the Examiner has also interpreted (1) the term "title ID" as simply "a file name," (2) the term "path" as simply "a general form of the name of a file or direction which specifies its unique location within the filesystem" and (3) the term "process ID" as simply a unique identifier created and used by the operating system to distinguish each application process (i.e., a program that is being executed as per Hamilton 4:37–45). *See* Ans. 10–13. Contrary to Appellants' arguments, claims 1 and 4 do not require a "title ID" to be provided with what Appellants characterize as "the following attributes: (i) it identifies the application file (containing the application program), (ii) it is included in the path to the application file; and

(iii) it is included in the path to the patch file." Instead, Appellants' claims 1 and 4 simply require a "title ID" to be part of, as recited in claim 4, the "directory structure where: (i) the application file is stored at one or more locations within a sub-directory of the directory structure identified by a path that includes the title ID; and (ii) the patch file is stored at one or more locations within another sub-directory identified by another path that includes the title ID."

As correctly recognized by the Examiner, both Tanaka and Hamilton teach Appellants' claimed "directory structure" for storing files (i.e., application files and patch files), title IDs and paths. For example, Tanaka's patch file acquisition unit 140 is described to acquire a patch file for game data from a memory medium, extract title ID included in the configuration file of the patch file, and create a directory structure for storing the patch file for each piece of game data, shown, for example, in Figure 7A. Final Act. 6 (citing Tanaka ¶¶ 1–12, 22–75, Figs. 1, 3, 8); *see also* Tanaka ¶¶ 41–42, 52. According to Tanaka, each path file includes (1) a configuration file, (2) a boot file, and (3) a differential file of the main program, wherein configuration file includes "path identifying information" and "directory identifying information" used to identify the path and the directory respectively. Tanaka ¶¶ 54, 71. Like Tanaka, Hamilton also teaches a directory structure of files, containing names (IDs) of individual files, and paths thorough the directory hierarchy. Ans. 15 (citing Hamilton 3:27–67). In addition, Hamilton also teaches Appellants' claimed "correspondence table" in the context of file tables maintained by the UNIX file system to keep track of all files, including "the paths, title IDs, mount points, and

process IDs of each file." Ans. 15–16 (citing Hamilton 3:5–67, 4:1–25, 4:37–45).

Lastly, we recognize that the Examiner must articulate some "reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir 2006). However, the reasoning need not appear in, or be expressly described by one or more of the references on which the Examiner relies. Instead, a reason to combine teachings from the prior art "may be found in explicit or implicit teachings within the references themselves, from the ordinary knowledge of those skilled in the art, or from the nature of the problem to be solved." *WMS Gaming Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1355 (Fed. Cir. 1999) (citing *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998)). "Under the correct [obviousness] analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 420 (2007).

Here, the Examiner has demonstrated the motivation for a person of ordinary skill in the art to achieve the claimed subject matter, i.e., both Tanaka and Hamilton disclose a file system used to facilitate upgrades based on specific tracking various file attributes. Ans. 16. According to the Examiner, "because both systems utilize and rely on a file system, and the attributes tracked by said file systems to facilitate the upgrade of software" one skilled in the art would be motivated to incorporate Hamilton's teachings into Tanaka to arrive at Appellants' claimed invention. Ans. 16.

For the reasons set forth above, Appellants have not persuaded us of Examiner error. Accordingly, we sustain the Examiner's obviousness

rejection of independent claims 1 and 4, and their respective dependent claims 2, 3, and 6, which Appellants do not argue separately. App. Br. 11–12.

OTHER ISSUES

In the event of further prosecution of this application, this panel suggests that the Examiner consider rejecting claims 1–4 and 6 under 35 U.S.C. § 112, 2nd paragraph, as being indefinite in light of the Federal Circuit en banc decision in *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1350 (Fed. Cir. 2015) (holding the term "'[m]odule' is a well-known nonce word that can operate as a substitute for 'means' in the context of § 112, para. 6," and in the absence of a corresponding structure disclosed in the specification, is considered indefinite under the 2nd paragraph of 35 U.S.C. § 112). In particular, Appellants' claims 1 and 4 recite several limitations such as: (1) a boot unit, (2) a file management unit including (i) a mount unit, (ii) a path acquisition unit, and (iii) a path switching unit that are considered non-structural, generic terms used to substitute the term "means-plus-function." Under 35 U.S.C. § 112, sixth paragraph, the "means-plus-function" limitation must be "construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." *Personalized Media Comm'ns, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 703 (Fed. Cir. 1998). If the "means-plus-function" limitation recited in the claim does not have an adequate supporting disclosure, then the claim fails to particularly point out and distinctly claim the invention as required under 35 U.S.C. § 112, second paragraph. *See In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994). Because there is no corresponding structure or an

algorithm to transform the general purpose computer or processor to a special purpose processor programmed to perform the disclosed function as required by *Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1338 (Fed. Cir. 2008), claims 1–4 and 6 should be considered as indefinite under 35 U.S.C. § 112, 2nd paragraph.

CONCLUSION

On the record before us, we conclude Appellants have not demonstrated the Examiner erred in rejecting claims 1–4 and 6 under 35 U.S.C. § 103(a).

DECISION

As such, we AFFIRM the Examiner's final rejection of claims 1–4 and 6.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED